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ABSTRACT

This analysis seeks to link discourse structure and semantic or lexical systems. The example is given of a Cuna curing chant named "the way of the pepper," in which 53 names for pepper ("kapur") are used in a projection of a paradigmatic axis (the lexical taxonomy) onto a syntagmatic axis. A corollary of the principle of viewing discourse from this perspective is that uses of speech or disccurse structures actually serve to define or elaborate certain linguistic sub-systems. This is termed "ecology of language." This and other examples suggest other areas for future research, namely the full range of principles by which paradigmatic systems are projected onto syntagmatic discourse structures, the relation of this principle to other basic principles, and the kinds of linguistic variation (phonological, or lexical, for example) manipulated in the process of discourse organization. (Author/AM)

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Semantic Systems, Discourse Structure, and the Ecology of Language

by

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Two current, dominant concerns of sociolinguistics are 1) the analysis of linguistic variation; and 2) the analysis of discourse. This paper focuses on the second concern, though it suggests one type of relationship existing between both of them.

The search for rules and principles of discourse requires combinations of insights and techniques from various disciplines--philosophy, linguistics, anthropology, sociology, and literary criticism, among them. One of the major recent contributions of philosophy and linguistics has been the extension and abstraction of the domain for formal description--from surface structures to deep structures; from sentences to speech acts and events; from inner- and inter- sentential relations to extra-sentential presuppositions. This has involved an increasing recognition that analysis of what is said requires analysis of what is not said. Social interactionists have focused attention on the ways language is used to do social work in everyday interaction; one interesting way they have gone about this is by looking at natural speech in terms of interchanges or utterance pairs.

I want to talk here about a different kind of discourse organization principle--one relating semantic or lexical systems and discourse structure. My primary example will be drawn from research among the Cuna Indians of San Blas, Panama. But I think the example raises questions that go beyond the Cuna, perhaps beyond the South American Tropical Forest, to societies such as our own.

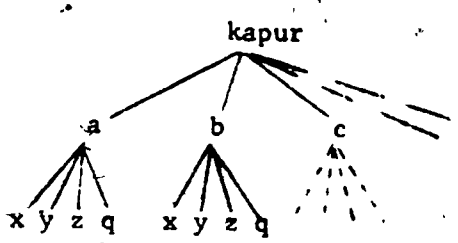
The Cuna example is kapur ikar "the way of the hot pepper" a curing chant[1] used against high fever. I will discuss the structure of a large portion of the chant which involves the projection or playing out of a lexical taxonomy (types of kapur "hot pepper") onto a parallelistic verse pattern.

A complete understanding of kapur ikar requires analyzing it in relation to Cuna ethnography of speaking in general.

Kapur ikar "the way of the hot pepper " like other Cuna curing chants, is performed by the "knower" of the chant to wooden suar mimmi "stick dolls," typically placed under the hammock of the patient. Although the chant is for the benefit of the sick person, the addressees are the stick dolls. The chant is performed in a language the stick dolls understand; and after hearing the chant, it is they who will go about doing the curing. One characteristic of Cuna curing chants is that they are extremely long, often lasting several hours at a time. In addition to phonological, morphological, and syntactic features distinguishing the "suar mimmi (stick doll) language" from colloquial Cuna, there are special lexical items used in the chants, lexical items which are often particular to single chants or even versions of them. These lexical items refer to the sick person, the chanter, the hammock, and to various objects relating to the disease and its cure. In the case of the kapur ikar "the way of the hot pepper " one predominant lexical specialization is the proliferation of names for types of kapur "hot pepper " in the "suar mimmi language." It is believed that mentioning or naming objects like kapur in their own language is an important aspect of controlling and directing them.

There are various versions of kapur ikar, corresponding to various schools, various teachers and students of this chant in San Blas and in the nearby Darien jungle, also inhabited by Cuna. Each of these versions describes the disease, the sick person, his relatives, etc. for the stick dolls. And each must also name the types of kapur "hot pepper." In one of the versions I have recorded, 53 different types of kapur are named. These types of kapur are not named randomly, but rather in systematic

fashion, from both a semantic point of view and within the chant itself. The naming of the kapur takes place within a long portion of the chant in which a particular pattern, with some slight variation, is repeated 53 times. In each repetition a different type of kapur is named. The resulting discourse structure makes explicit the semantic taxonomy of kapur used by the performer of the chant. The taxonomy is as follows:



where a, b, c, etc. are the types of kapur "hot pepper" and x, y, z, etc. are subtypes, usually named for colors.

This semantic taxonomy--types of kapur "hot pepper"-- is plugged into a parallelistic pattern of the chant structure in a systematic way, namely by beginning at the top, moving down for each type and subtype until it is completed, and then moving on. Thus, first kapur itself, then a, then x under a, then y under a, then z under a, then q under a, then b, then x under b, then y under b, etc. (There is some variation and switching possible.[2]) The verse pattern is as follows:

in the north
name of kapur
name of type of kapur
name of subtype of kapur
is named
the flowers are perceived
the leaves are perceived
the stems are perceived
the seeds are perceived

This example, as presented so far, represents an instance of a relationship between what anthropologists call ethnoscience and what literary critics call poetics. In essence it is an elaboration of what Roman Jakobson has called the poetic function or principle in language--the projection of a paradigmatic axis onto a syntagmatic axis. Here the paradigmatic consists of the lexical taxonomy--types of kapur "hot pepper;" the syntagmatic, the parallelistic verse pattern.

The example raises further questions with regard to Cuna language and society. These questions can be grouped in two related categories--linguistic variation and ethnography of speaking. With regard to linguistic variation, the taxonomy of kapur "hot pepper " used in kapur ikar "the way of the hot pepper " is different from that used in everyday colloquial Cuna in two ways. The labels are different. The kapur "hot pepper " labels used in the chant are those of the suar mimmi "stick doll" language. Furthermore, the taxonomy seems to be more elaborate than that used in everyday speech. I have not yet carried out a systematic study of lexical variation among the Cuna. But preliminary investigation seems to indicate that in the area of medicinal-curing plants and animals there is considerable variation--not only between everyday language and ritual language, but also among the different types of ritual and ceremonial language themselves--that of chiefs, medicine men, various chant "knowers," puberty rites specialists, etc. (For a general discussion of Cuna linguistic varieties, see Sherzer 1975.) Some of this variation involves the fullness or completeness of taxonomies such as those for kapur; i.e., whether x, y, z, etc. are present or not.[3] But there may also be variation in the organizational structure of the semantic field as a whole.[4] It is quite probable, then, that the elaborate taxonomy of kapur discussed here does not exist in the Cuna language independent of

its use in kapur ikar. Rather, the full taxonomy is both drawn on for the chant and actually defined in the performance of the chant.[5]

A related question raised by "the way of the hot pepper" has to do with Cuna ethnography of speaking in general. Cuna medicinal and related chants involve the use of verbal means to control such objects as plants and animals. An important aspect of this control is the naming of the object in the appropriate linguistic variety (thus showing knowledge of its origin). What better way to do this than to systematically go through the taxonomy of the object(s) in question--the more and the fuller, the better, the more powerful. Furthermore, for the Cuna, length of performance is highly valued, as medicinally effective, rhetorically convincing, and verbally artistic. The combination of a parallelistic pattern and a full taxonomy enables the production of very long performances. I might note also that such systematic use of a taxonomy provides a mneumonic memorization device valuable in a non-literate society. Finally, an important aspect of Cuna ethnography of speaking is the existence of various, special linguistic varieties, whose primary manifestation is lexical. Thus the elaboration of types of kapur "hot pepper " is a striking expression and manifestation of one such linguistic variety and a performer's knowledge of it.

Before leaving the Cuna, let me suggest that I strongly suspect that the principle I have just discussed in kapur ikar is also at work in others within the rich set of Cuna ritual and ceremonial genres and that it might be fruitful to look at other Tropical Forest groups from this perspective as well.

I have argued here, on the basis of a single and perhaps special example, for the importance of looking at discourse from the perspective of the projection of paradigmatic systems (semantic or otherwise) onto

syntagmatic patterns. A corollary is that uses of speech or discourse structures actually serve to define or elaborate certain linguistic sub-systems. I would like to use the term "ecology of language" to label this situation; i.e., the fact that subsystems of language are resources or potentials that are both 1) projected onto discourse structures; and 2) defined in full only in the context of their use.

Let me now briefly present some other examples. First a famous English ballad, "The Gallows Tree," this version recorded in Indiana. It is as follows (from Brewster, p. 125-127):

1. "Slack your rope, hangs-a-man;
   O slack it for a while;
   I think I see my father coming,
   Riding many a mile.

2. "O Father, have you brought me gold,
   Or have you paid my fee?
   Or have you come to see me hanging
   On the gallows tree?"

3. "I have not brought you gold;
   I have not paid your fee,
   But I have come to see you hanging
   On the gallows tree."

4. "Slack your rope, hangs-a-man;
   O slack it for a while;
   I think I see my mother coming,
   Riding many a mile.

5. "O Mother, have you brought me gold,
   Or have you paid my fee?
   Or have you come to see me hanging
   On the gallows tree?"

6. "I have not brought you gold;
   I have not paid your fee,
   But I have come to see you hanging
   On the gallows tree."

7. "Slack your rope, hangs-a-man;
   O slack it for a while;
   I think I see my brother coming,
   Riding many a mile.

8. "O Brother, have you brought me gold,
Or have you paid my fee?
Or have you come to see me hanging
On the gallows tree?"

9. "I have not brought you gold;
I have not paid your fee,
But I have come to see you hanging
On the gallows tree."

10. "Slack your rope, hangs-a-man;
O slack it for a while;
I think I see my sister coming,
Riding many a mile.

11. "O Sister, have you brought me gold,
Or have you paid my fee:
Or have you come to see me hanging
On the gallows tree?"

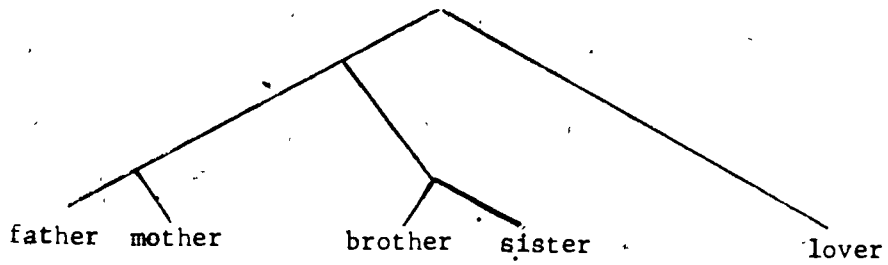
12. "I have not brought you gold;
I have not paid your fee,
But I have come to see you hanging
On the gallows tree."

13. "Slack you rope, hangs-a-man;
O slack it for a while;
I think I see my lover coming,
Riding many a mile.

14. "O Lover, have you brought me gold,
Or have you paid my fee?
Or have you come to see me hanging
On the gallows tree?"

15. "Yes, I have brought you gold;
Yes, I have paid your fee,
Nor have I come to see you hanging
On the gallows tree."

The structure of this ballad involves the projection of a simple paradigm onto a parallelistic verse pattern. The paradigm is the set of kin or relative terms. The "lover" can be viewed as either a marked member of such a set or else not a member of the set at all. Thus:



In any case, the rhetorical effect of the ballad depends on the placement of the lover last, in the final verse-trio, together of course with the shifts from negative to positive and positive to negative (another paradigm) in the final verse.

Children's rhymes and language games often provide examples of the principle I am discussing here, as well as often illustrating playing with the principle as part of the process of language and speech learning. Thus Sanches and Kirshenblatt-Gimblett, in their paper on children's speech play, cite a well-known jump-rope rhyme (from Withers, p. 141):

I went downtown
To see Mrs. Brown
She gave me a nickel
To buy a pickle.
The pickle was sour,
She gave me a flower.
The flower was dead,
She gave me a thread.
The thread was thin,
She gave me a pin.
The pin was sharp,
She gave me a harp.
The harp began to sing,
"Minnie and a minnie and a ha ha ha."

What is interesting here is that the phonic-rhyming cohesion seems in excess as compared with the concomitant lack of complete semantic congruity. That we feel this to be the case argues for the existence of some kind of semantic paradigm underlying coherent discourse. Children who perform this rhyme are often probably as aware of the semantic incongruities as we are and enjoy the rhyme as language play. Adults also enjoy such play and interplay with the projection of phonic and semantic paradigms onto syntagmatic structures, as is shown by this dialogue between Vladimir and Estragon in Samuel Beckett's Waiting For Godot (p. 48):

Vladimir: Moron!
Estragon: Vermin!
Vladimir: Abortion!
Estragon: Morpion!

Vladimir: Sewer-rat!
Estragon: Curate!
Vladimir: Cretin!
Estragon: Crritic![6]

From adults again, and from another part of the world, there is the intriguing example of Rotinese (in Indonesia) ritual language, as described by James Fox. Rotinese ritual language consists of pairs of lines whose parallelism is based on lexical sets (dyadic sets). The pairs of words in each set manifest various kinds of semantic relationship, reinforced by their use in the parallelistic verse structure. One way in which members of dyadic sets can be related is the following: one member is from an eastern Rotinese dialect and one from a western Rotinese dialect. This is an excellent example of what I have called here linguistic ecology, in that various types of lexical relationship, including dialect differences, are drawn on in the creation of ritual language. Rotinese ritual language thus seems to define dialect differences as one kind of lexical-semantic relationship. Furthermore, Fox's description strongly suggests that one of the reasons that Rotinese dialect differences (often rather slight) have persisted is because of their important role in the formation of dyadic sets, crucial to the ritual language.

One might object at this point that all of my examples have been drawn from a particular class of discourse--formal, ceremonial, ritual, literary, relatively fixed, single-speaker. This is true to a degree. The examples do, though, manifest considerable variety within such a class; and such styles of speaking or types of discourse are well worth studying in and for themselves. In addition, I propose, as much as a question at this point than as a definitive claim, that systematic rules of projection of linguistic paradigms or subsystems onto syntagmatic structures may well be worth

studying in more spontaneous, casual, natural speech. This would mean focusing on the use of the poetic principle (in Jakobson's sense) in everyday speech (not the same thing as studying the poetry of everyday speech).[7]

My final example, then, is from the opposite end of the formal--casual continuum in speech. It results from an exercise I have been giving students in classes for several years, "In the course of any verbal interaction, with any others, in any way, request repetition of the speaker."[8] The result is a quite spontaneous, casual, unrehearsed, two-participant speech event, with the following structure:

A: O

B: (?)

A: R

where A and B are the participants, O the original utterance, (?) the request for repetition, and R the repetition.[9] The problem (and here I use problem in the sense of Schegloff and Sacks) for A (actually for A and B together) is to say in R what he thinks B "missed" in O so that he can get back into the verbal interaction that B "interrupted." Though R is sometimes an identical repetition of O, it often is not. In fact, O's relationship to R often manifests the existence of particular linguistic subsystems shared by the speech community(ies) of which A and B are members or particular personal understandings shared by A and B alone. To reformulate this example in the terms I have been using here to discuss other examples,

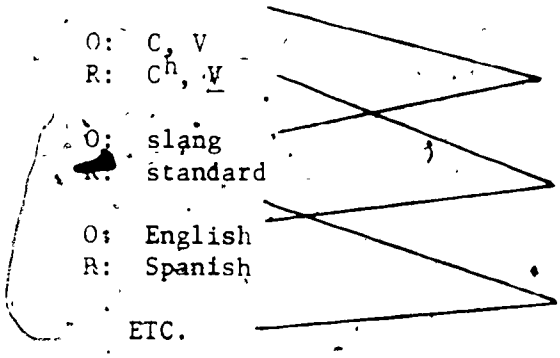
A: O

B: (?)

A: R

is a discourse structure onto which are projected (must be projected in

order for this discourse structure to be "solved," completed properly) mini-paradigms of various kinds. These paradigms may be phonetic, as when R differs from O in that R is louder or slower, or the vowels of R are longer or the consonants more aspirated (on the table: on the THAABLE). Or O may be in slang and R in a more standard form (or vice-versa--notice here that I am talking about A-B definitions of slang). Or O and R might be rough paraphrases of one another (paraphrase here being understood as A and B agreeing, obviously not consciously, to treat R as in some way equivalent to O; or as a clarification, explanation, etc. of O so that they can get on with their discourse business). Or O is an imperative form and R is a more polite form of a command. (Open the window: would you open the window.) Or, as in examples from language use in the Chicano community in Austin, Texas[10], O might be in English and R in Spanish (Where are you going?: ¿Dónde vas?). Or other pairs of linguistic varieties A and B share (again from the Chicano community in Austin: limpiamos la yarda, you know: limpiamos el solar, you know). (Or O in a local dialect of Arabic and R in classical Arabic.) These "potential" mini-paradigms, projectable onto the simple discourse structure, can be represented as follows:



I use the term "potential" here (for the paradigms on the left side of the arrows) to stress what I have been calling the ecological aspect of these paradigms--the fact that they exist as linguistic resources in a particular

speech community (or just in the shared speech of A and B) and can be and in fact are drawn on when needed, as in the case reported on here--quite spontaneously, when asked to repeat.

This example from spontaneous speech is particularly interesting precisely because it involves a very common discourse pattern--something we all do often, every day (repeat what we say at the request of others), which taps or, actually, sets in motion a wide range of linguistic paradigms or subsystems, by projecting them onto the simple discourse pattern.

In this paper, I have investigated one basic principle of discourse in a variety of different manifestations. This principle is the projection of paradigmatic systems of language onto syntagmatic discourse structures. I think my examples suggest several areas or questions for future research:

1) to look more carefully, fully, and formally at the full range of principles by which paradigmatic systems get projected onto syntagmatic discourse structures--from conversational genres to more formal ways of speaking;

2) to ask how this principle of discourse is related to other basic principles of discourse--notions of textual cohesion as discussed by Bellert, Halliday, and others; conversational implicature; adjacency pairs; etc.; and

3) to ask what kinds of linguistic variation (phonological, lexical, grammatical, etc.) (in what kinds of speech community and groups within speech communities) become evident and are exploited and manipulated in the process of discourse organization.[11]

NOTES

1. I use the term "chant" for what the Cuna call ikar or "way." For a much fuller discussion of the place of Cuna curing chants in Cuna ethnography of speaking, see Sherzer 1975.

2. For example, sometimes an x, y, z, or q is left out or ordering is reversed among x, y, z, and q.

3. Kay's distinction between "constants" and "variables," "core" and "periphery" might be useful here.

4. Brian Stross has suggested to me that the Cuna ritual specialists are botanical taxonomists, Cuna Linnaeus's, so to speak.

5. Such an approach to semantics, relating semantic contract to usage in context, was proposed by Hymes 1964: 4-5.

6. An interesting children's game in which children manipulate, display, and compete in competence in the projection of lexical taxonomies is Categories, performed by groups of children in a round. I am indebted to Richard Bauman and others involved in his project on children's folklore for discussions concerning the relationship between children's folklore and the ideas raised in this paper.

7. I owe this observation to Dina Sherzer.

8. In the terminology of Merritt, this would be a request for "playback."

9. Notice that O can involve a wide range of speech acts and events--declarative statements, questions, commands, narration, etc.

10. These examples are drawn from the ongoing research of Lucía Elías-Olivares into varieties of language use in East Austin.

11. This paper was presented at the THIRD ANNUAL COLLOQUIUM ON NEW WAYS OF ANALYZING VARIATION, ETC., Georgetown University, October, 1974. Research among the Cuna Indians was supported by NSF Grant USDP 1598 to the University of Texas and an NIMH small grant. I would like to thank Richard Bauman, Dell Hymes, Dina Sherzer, and Brian Stross for their comments on the paper.

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